MONTHLY WEATHER REVIEW.

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VOL. XXXII. MAY, 1904. No. 5

INTRODUCTION.

The MONTHLY WEATHER REVIEW for May, 1904, is based on data from about 3300 stations, classified as follows:

Weather Bureau stations, regular, telegraph, and mail, 167; West Indian Service, cable and mail, 4; River and Flood Service, regular 43, special river and rainfall, 190, special rainfall only, 56; voluntary observers, domestic and foreign, 2565; total Weather Bureau Service, 3025; Canadian Meteorological Service, by telegraph and mail, 20, by mail only, 13; Meteorological Service of the Azores, by cable, 2; Meteorological Office, London, by cable, 8; Mexican Telegraph Company, by cable, 3; Army Post Hospital reports, 18; United States Life-Saving Service, 9; Southern Pacific Company, 96; Hawaiian Meteorological Service, 75; Jamaica Weather Service, 130; Costa Rican Meteorological Service, 25; The New Panama Canal Company, 5; Central Meteorological Observatory of Mexico, 20 station summaries, also printed daily bulletins and charts, based on simultaneous observations at about 40 stations; Mexican Federal Telegraph Service, printed daily charts, based on about 30 stations.

Special acknowledgment is made of the hearty cooperation of Prof. R. F. Stupart, Director of the Meteorological Service of the Dominion of Canada; Mr. R. C. Lydecker, Territorial Meteorologist, Honolulu, Hawaii; Señor Manuel E. Pastrana, Director of the Central Meteorological and Magnetic Observatory of Mexico; Camilo A. Gonzales, Director-General of Mexican Telegraphs; Capt. S. I. Kimball, Superintendent of the United States Life-Saving Service; Lieut. Commander H. M. Hodges, Hydrographer, United States Navy; H. Pittier, Director of the Physico-Geographic Institute, San José, Costa Rica; Commandant Francisco S. Chaves, Director of the Meteorological Service of the Azores, Ponta Delgada, St. Michaels, Azores; W. N. Shaw, Esq., Secretary, Meteorological Office, London; Rev. José Algué, S. J., Director, Philippine Weather Service; and H. H. Cousins, Chemist, in charge of the Jamaica Weather Office; Señor Enrique A. Del Monte, Director of the Meteorological Service of the Republic of Cuba.

Attention is called to the fact that the clocks and self-registers at regular Weather Bureau stations are all set to seventy-fifth meridian or eastern standard time, which is exactly five hours behind Greenwich time; as far as practicable, only this standard of time is used in the text of the REVIEW, since all Weather Bureau observations are required to be taken and recorded by it. The standards used by the public in the United States and Canada and by the voluntary observers are believed to conform generally to the modern international system of standard meridians, one hour apart, beginning with Greenwich. The Hawaiian standard meridian is 157° 30′, or $10^h\ 30^m$ west of Greenwich. The Costa Rican standard meridian is that of San José, $5^h\ 36^m$ west of Greenwich. Records of miscellaneous phenomena that are reported occasionally in other standards of time by voluntary observers or newspaper correspondents are sometimes corrected to agree with the eastern standard; otherwise, the local standard is mentioned.

Barometric pressures, whether "station pressures" or "sea-level pressures," are now reduced to standard gravity, so that they express pressure in a standard system of absolute measures.

FORECASTS AND WARNINGS.

By Prof. E. B. GARRIOTT, in charge of Forecast Division.

May weather presented no unusual features on the North Atlantic Ocean, and the coasts and Great Lakes of the United States were not visited by severe storms.

Heavy rains occurred in the Middle-western States and at the close of the month the rivers of Kansas were in flood.

Drought continued in New Mexico and Arizona, and the early part of the month was very dry in Texas and the South Atlantic States.

Severe local storms were reported from Iowa and Kansas to northern Texas on the 5th, in Virginia on the 18th, and in Kansas on the 25th. During the afternoon of the 30th a well-defined tornado occurred about 12 miles west of Mobile, Ala.

NEW ENGLAND FORECAST DISTRICT.

The weather of the month was very pleasant, with more than the usual number of fair days and an abundance of sunshine. Frosts were general during the early part of the month, but caused no serious damage. No high winds occurred along the coast.—*J. W. Smith, District Forecaster.*

WEST GULF FORECAST DISTRICT.

Local thunderstorms, accompanied in some instances by high winds, occurred on several dates, and storm warnings were issued on two dates.—*I. M. Cline, District Forecaster.*

NORTH CENTRAL FORECAST DISTRICT.

The weather was without special characteristics. A few storms of moderate strength, for which warnings were issued, passed over the upper Lakes, but no wrecks or damage were reported. Frost warnings were issued on two or three occasions.—*H. J. Cox, Professor and District Forecaster.*

ROCKY MOUNTAIN FORECAST DISTRICT.

On the 1st to 3d and on the 19th and 20th heavy rains fell on the middle-eastern slope of the Rocky Mountains, and during the first period snow fell in the mountain region, the fall being very heavy in the foothill districts, notably at Cripple Creek, where the depth exceeded two feet. The rain of the 19-20th caused considerable damage in Wyoming and north-central Colorado. A heavy downpour of rain in the hills west of Cheyenne, Wyo., caused a destructive flood to sweep through a part of Cheyenne during the night of the 20th, drowning two children and damaging much property. In Colorado the damage was confined principally to the Valley of the Poudre and Greeley, where for a distance of 35 miles crops were washed out or covered with mud or débris; fences, outbuildings, bridges, etc., were washed away and considerable live stock drowned. Unfortunately for live stock and agricultural interests, the precipitation of the month did not extend far enough southward to break the drought prevailing in Arizona and New Mexico. The severe frosts that occurred in the high districts were accurately forecast, as well as the light frosts that visited the important agricultural and fruit growing dis-